

WHAT IS CLAIMED IS:

1. An in-mold foam molding method employing a in-mold foam molding apparatus comprising a core mold and a cavity mold devoid of air orifices, such as core vents and core vents holes, in those molding sections for molding prominent areas of the outside face of a molded article; and moveable partitioning members for partitioning the mold cavity so as to prevent passage of the bead starting materials, said moveable partitioning members being retractable from the mold cavity by means of drive means; wherein said method comprises the steps of: with the mold cavity partitioned into a plurality of partitioned mold chambers by the moveable partitioning members, filling adjacent partitioned mold chambers with bead starting materials of different properties; and retracting said moveable partitioning members after packing the bead starting materials and before the bead starting materials are fused together with steam.

2. An in-mold foam molding method employing an in-mold foam molding apparatus comprising a core mold and a cavity mold devoid of air orifices, such as core vents and core vent holes, in those molding sections for molding prominent areas of the outside face of a molded article; and

fixed partitioning members of comb configuration having a plurality of teeth for preventing passage of the bead starting materials, said members being fixed to the core mold or cavity mold with said teeth arranged along the mold parting direction; wherein said method comprises the steps of: filling adjacent partitioned mold chambers partitioned by means of said fixed partitioning members with bead starting materials of different properties; and supplying steam to the mold cavity to heat and fuse the bead starting materials.

3. The in-mold foam molding method according to claim 1, wherein said passage orifices are completely or largely omitted from the core mold and cavity mold.

4. The in-mold foam molding method according to claim 2, wherein said passage orifices are completely or largely omitted from the core mold and cavity mold.

5. An in-mold foam molding method employing the in-mold foam molding apparatus according to claim 1, comprising the steps of: with the moveable partitioning members extended to partition the mold cavity into a plurality of partitioned mold chambers by the moveable

partitioning members, filling the mold cavity with bead starting materials such that at least adjacent partitioned mold chambers are filled with bead starting materials of different properties; and retracting said moveable partitioning members after packing the bead starting materials and before the bead starting materials are fused together with steam.

6. The in-mold foam molding method according to claim 5, wherein the moveable partitioning members are retracted after filling said mold cavity with bead starting materials; and steam is then delivered to the mold cavity to heat and fuse the bead starting materials.

7. An in-mold foam molding method employing the in-mold foam molding apparatus according to any of claim 1 and employing as the bead starting materials bead starting materials incapable of passing through the teeth, comprising the step of: with the core mold and cavity mold closed so that the mold cavity is partitioned into a plurality of partitioned mold chambers by fixed partitioning members, filling each partitioned mold chamber with bead starting materials such that at least adjacent partitioned mold chambers are filled with bead starting materials of

different properties.

8. An in-mold foam molding method employed the in-mold foam molding apparatus according to claim 1 and employing as the bead starting materials a first bead starting material incapable of passing through the teeth and a second bead starting material capable of passing through the teeth, comprising the steps of: with the core mold and cavity mold closed so that the mold cavity is partitioned into a plurality of partitioned mold chambers by fixed partitioning members, filling with the first bead starting material; and filling with second bead starting material; each partitioned mold chamber being filled with bead starting materials such that at least adjacent partitioned mold chambers are filled with bead starting materials of different properties.

9. The in-mold foam molding method according to claim 1, wherein said plurality of partitioned mold chambers are filled with bead starting materials of different degrees of expansion.

10. The in-mold foam molding method according to claim 2, wherein said plurality of partitioned mold chambers are

filled with bead starting materials of different degrees of expansion.